

**A RESOLUTION  
BY FINANCE/ EXECUTIVE COMMITTEE**

**06-*R*-1315**

**A RESOLUTION AUTHORIZING THE MAYOR TO ENTER INTO AN AGREEMENT WITH M 3 TECHNOLOGY FOR THE PURCHASE OF EQUIPMENT SUPPORT ON BEHALF OF THE DEPARTMENT OF INFORMATION TECHNOLOGY, IN AN AMOUNT NOT TO EXCEED \$50,000.00; ALL CONTRACTED WORK TO BE CHARGED TO AND PAID FROM FUND ACCOUNT AND CENTER NUMBER 1C51 (CAPITAL FINANCE FUND) 575001 (EQUIPMENT) E12001 (COMPUTER OPERATIONS); AND FOR OTHER PURPOSES.**

**WHEREAS**, on April 13, 2006, the City of Atlanta ("City") was affected by an email outage which lasted 14 hours; and

**WHEREAS**, as a result of the outage, approximately eighty percent of City employees and officials were unable to access their email accounts; and

**WHEREAS**, subsequent to the outage a report was prepared to determine the cause of the outage and to suggest precautionary measures which must be taken to prevent future email outages; and

**WHEREAS**, the study suggested that Oracle Portal/Exchange Infrastructure and equipment support be acquired to prevent future outages; and

**WHEREAS**, the Commissioner of the Department of Information Technology recommends purchasing equipment support from M 3 Technology to prevent future email outages.

**THE CITY COUNCIL OF THE CITY OF ATLANTA, GEORGIA HEREBY RESOLVES**, that the Mayor is authorized to enter into an agreement with M 3 Technology for equipment support in an amount not to exceed \$50,000.00.

**BE IT FURTHER RESOLVED**, that all contracted work will be charged to and paid from Fund, Account and Center Number 1C51 (Capital Finance Fund) 575001 (Equipment) E12001 (Computer Operations).

**BE IT FURTHER RESOLVED**, that the City Attorney is directed to prepare the appropriate Agreement for execution by the Mayor.

**BE IT FURTHER RESOLVED**, that the Agreement will not become binding upon the City and the City will incur no obligation or liability under it until it has been executed by the Mayor, attested to by the Municipal Clerk, approved by the City Attorney as to form and delivered to Dell Marketing, L.P.



**CITY OF ATLANTA**  
Office of the Chief Operating Officer  
Lynnette W. Young  
55 Trinity Avenue, SW  
Atlanta, GA 30335-0300

## MEMORANDUM

To: Councilmember Howard Shook  
Council President Lisa Borders

From: Lynnette W. Young, COO *LWY*

Date: May 16, 2006

Re: Email Outage on April 13, 2006

---

You have requested a summary on the email outage that occurred on April 13, 2006. This summary answers the questions of when, what and why the email outage occurred on this day. It also explains the need to correct all of the email system's shortcomings. In addition, it briefly focuses on both the interim and high availability solutions so that this problem does not occur again.

### **Outage**

On April 13, 2006 at 4:30 PM, the City of Atlanta (COA) experienced an email outage. The downtime lasted 14 hours. Approximately, 80% of COA users could not access their email accounts. Citizens could not email COA.

### **The Root Cause of the Outage**

The outage occurred because of a disk I/O error on its key Microsoft Exchange Server.

The COA's email environment consisted of three servers running Microsoft Exchange. One server, DIT-EXCH-VT1, was running Microsoft Exchange 2003. The City had just completed testing this environment and implemented plans and procedures to move forward. The other server, DIT-EXCH-CE, consisted of two virtual servers. The DIT-EXCH-CE was running Microsoft Exchange 5.5, an environment Microsoft no longer supports. In addition, this server was running on the Marathon platform. This was also the server that failed. For the past two years, the DIT-EXCH-CE server had proven to be consistent for redundant systems. The City's redundant system consisted of dual servers, hard drives, network components and operating systems.

After the failure, all DIT Server Staff employees were engaged in recovering city employee's old email and Calendar information. On Friday, April 14, 2006 at 06:30 AM, the City single failed email server became operational. The City had two other Microsoft Exchange servers operating, with COA employees mailboxes on them. Users could send and receive new email messages. However, some users had lost some access to their old email messages and contact information.

### **Interim Solution**

After the outage, the City remained in recovery mode. During this period, the City worked to recover individual mailboxes, login credentials and environmental settings. To expedite the recovery, DIT hired M3 Technology Group, a Microsoft consulting firm. M3 Technology Group assisted COA employees with recovering the City's data. The firm along with DIT Server Staff moved approximately 1,000 user accounts from the servers, DIT-EXCH03-VT1 and DIT-EXCH03-VT2 to DIT-EXCH03-05 and DIT-EXCH03-06. M3 Technology Group brought these last two servers online in order to increase performance.

As a result, the City has the email system running on five servers. All servers are single units except for the one that runs Marathon's new version. Each server has hard drives with the operating system installed on them. The data drives are also redundant. The City has completed recovering the email system. All employees are now using Microsoft Exchange 2003, including internal as well as those who access their email through the web browser. The City performs a backup of all email servers every night. The City has set up a test restore area, where email backups are tested once a week.

### **High Availability Solution**

To ensure additional reliability, the City must move from a software-based redundancy to a hardware-based redundancy environment. The City is moving forward with implementing Microsoft Exchange 2003 Cluster Nodes. This technology consists of a collection of servers that work together in delivering a single, highly available system for hosting email. This technology will benefit the City in the following ways:

- **High Availability**—protects the City against failures of hardware, operating systems, or email. If one of the servers in a cluster fails and is unavailable, another server will step in and continue to provide the service, otherwise known as failover.
- **Scalability**—provides the ability to add additional servers to the cluster to allow for future growth.
- **Manageability**—using server clusters will enable the City to manage and upgrade the systems with little or no impact to users.

Implementing Microsoft Exchange 2003 Cluster Nodes will not only provide the desired reliability, but will be cost-effective.

All organizations have technology issues and challenges – whether government, large corporations or small businesses – crashes and viruses will occur. We will continue to try to minimize the disruptions to City government.

Thank you for your interest.

Cc: Members of City Council  
Abe Kani, CIO  
Greg Pridgeon, COS  
Ben Graham, DIT

**DELL****INFORMATION ONLY - NOT A QUOTE**

CONFIG ID #: 1474267

Customer #: 26082788

Contract #: 70137

Customer Agreement #: Dell Std Terms

Quote Date: 6/2/06

Date: 6/2/06 2:33:24 PM

Customer Name: CITY OF ATLANTA

*This preliminary quotation is for information and budget analysis only and is subject to verification and change based upon validation of the proposed configuration and other factors.*

TOTAL QUOTE AMOUNT:	\$298,678.01		
Product Subtotal:	\$298,678.01		
Tax:	\$0.00		
Shipping & Handling:	\$0.00		
Shipping Method:	Ground	Total Number of System Groups:	9

GROUP: 1	QUANTITY: 4	GROUP TOTAL: \$5,613.32
Base Unit:	QLogic 2460 4Gbps PCI-E FC HBA (222-0420)	
	Power Path ENT Windows Workgroup (420-2482)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, Initial Year (950-1740)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, 2YR Extended (950-1742)	
	Premium Enterprise Support Gold - Premium Services (902-5422)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	

GROUP: 2	QUANTITY: 1	GROUP TOTAL: \$35,109.73
Base Unit:	DELL , EMC DAE2p DISK ARRAY ENCLOSURE (222-0232)	
	Five 300GB 10K Fiber Channel-2Hard Drive for CX/DAE2 Enclosures from EMC (341-2212) - Quantity 3	
	EMC RAIL KIT FOR DAE2p (310-6976)	
	Premium Enterprise Support - Gold - Premium Services (950-5917)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response Initial Year (960-7960)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response 2 Year Extended (960-3212)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	
	Dont ship to EU,Japan after July/1/06 - Product not compliant w EU RoHS Directive (Restriction of Hazardous (465-3663)	

GROUP: 3	QUANTITY: 2	GROUP TOTAL: \$72,325.56
----------	-------------	--------------------------

Base Unit:	DELL , EMC DAE2p DISK ARRAY ENCLOSURE (222-0232)
	15x146GB 15K Fibre Channel-2 Hard Drive for CX/DAE2 Enclosures from EMC (341-2680)
	EMC RAIL KIT FOR DAE2p (310-6976)
	Premium Enterprise Support - Gold - Premium Services (950-5917)
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response Initial Year (960-7960)
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response 2 Year Extended (960-3212)
	Thank You for buying Dell (983-2207)
	Please visit WWW.Dell.COM (983-2217)
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)
	Dont ship to EU,Japan after July/1/06 - Product not compliant w EU RoHS Directive (Restriction of Hazardous (465-3663)

GROUP: 4	QUANTITY: 6	GROUP TOTAL: \$3,786.66
Base Unit:	QLogic 2460 4Gbps PCI-E FC HBA (222-0420)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, Initial Year (950-1740)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, 2YR Extended (950-1742)	
	Premium Enterprise Support Gold - Premium Services (902-5422)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	

GROUP: 5	QUANTITY: 2	GROUP TOTAL: \$22,634.26
Base Unit:	Brocade 4100 16-32 Ports on Demand 4Gbps Fibre Channel Switch (221-8352)	
	5M Multi-Mode FC Cable LC-LC (310-4929) - Quantity 8	
	Premium Enterprise Support - Gold - Premium Services (950-5927)	
	Premium Enterprise Support - Gold - Advanced Software Support (950-5987)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, 2YR Extended (960-1562)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, Initial Year (960-1600)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	

GROUP: 6	QUANTITY: 1	GROUP TOTAL: \$35,811.76
Base Unit:	DELL , EMC DAE2p DISK ARRAY ENCLOSURE (222-0232)	
	10x146GB 15K Fibre Channel-2 Hard Drive for CX/DAE2 Enclosures from EMC (341-2679)	
	Five 300GB 10K Fiber Channel-2Hard Drive for CX/DAE2 Enclosures from EMC (341-2212)	
	EMC RAIL KIT FOR DAE2p (310-6976)	
	Premium Enterprise Support - Gold - Premium Services (950-5917)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response Initial Year (960-7960)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response 2 Year Extended (960-3212)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	
	Dont ship to EU,Japan after July/1/06 - Product not compliant w EU RoHS Directive (Restriction of Hazardous (465-3663)	

GROUP: 7	QUANTITY: 2	GROUP TOTAL: \$4,091.32
Base Unit:	QLogic 2460 4Gbps PCI-E FC HBA (222-0420)	
	Power Path ENT Windows Departmental (420-2483)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, Initial Year (950-1740)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, 2YR Extended (950-1742)	
	Premium Enterprise Support Gold - Premium Services (902-5422)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	

GROUP: 8	QUANTITY: 1	GROUP TOTAL: \$82,091.72
Base Unit:	Dell   EMC CX500 Disk Processor Enclosure Array (221-4205)	
	15x146GB 15K Fibre Channel-2 Hard Drive for CX/DAE2 Enclosures from EMC (341-2680)	
	CX500 Docs and RTU (310-5831)	
	Navisphere Mgr Suite, CX500 Departmental (3-7 Hosts) with Mgr/Agent/Acc Logix (410-0395)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, Initial Year (902-2860)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response, 2YR Extended (902-1862)	
	Premium Enterprise Support - Gold - Advanced Software Support (970-6339)	
	Premium Enterprise Support - Gold - Premium Services (970-6367)	
	Thank You for buying Dell (983-2207)	
	Please visit WWW.Dell.COM (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	
	CX500 SAN IMPLEMENTATION / INSTALLATION 1 TO 6 HOSTS (981-8068)	
	Dont ship to EU,Japan after July/1/06 - Product not compliant w EU RoHS Directive (Restriction of Hazardous (465-3663)	
	Storage Cluster Information Fibre Channel Cluster,EMC Fulfilled (310-1184)	
	Software Installation IncludedIn SAN/DAS Implementation Installation (981-9059)	

GROUP: 9	QUANTITY: 1	GROUP TOTAL: \$36,669.63
Base Unit:	DELL , EMC DAE2p DISK ARRAY ENCLOSURE (222-0232)	
	Five 300GB 10K Fiber Channel-2Hard Drive for CX/DAE2 Enclosures from EMC (341-2212) - Quantity 3	
	EMC RAIL KIT FOR DAE2p (310-6976)	
	Premium Enterprise Support - Gold - Premium Services (950-5917)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response Initial Year (960-7960)	
	Type 2 Contract - Same Day 4-Hour 7x24 Parts and Labor On-Site Response 2 Year Extended (960-3212)	
	Thank You for buying Dell (983-2207)	
	Please visit <a href="http://WWW.Dell.COM">WWW.Dell.COM</a> (983-2217)	
	Hardware Installation IncludedIn SAN/DAS Implementation Installation (981-9069)	
	Dont ship to EU,Japan after July/1/06 - Product not compliant w EU RoHS Directive (Restriction of Hazardous (465-3663)	
	Enterprise Assistance, 5 Pack,3 Years (980-0897)	

SOFTWARE & ACCESSORIES	
Product	Quantity
HBA Utility CD,WIN Attach Customer Install (420-0903)	1
Rapid Rails, Brocade 4100 for Dell and Square Hole Racks (310-6601)	2
Number of S & A Items: 2	

TOTAL QUOTE AMOUNT:	\$298,678.01		
Product Subtotal:	\$298,678.01		
Tax:	\$0.00		
Shipping & Handling:	\$0.00		
Shipping Method:	Ground	Total Number of System Groups:	9

SALES REP:	April L Phillips	PHONE:	1800-981-3355
Email Address:	April_L_Phillips@dell.com	Phone Ext:	72-63707

This is an **ESTIMATE ONLY**. It is based on limited information and budgetary assumptions. A final quotation will be issued after a completed SCRF is in place and agreed to by both parties. Pricing, requirements, specifications, availability, and the terms and conditions as set forth in this preliminary quote are subject to change without notice. Validation of product requirements by Dell may substantially change the information provided. A final quotation will not be issued until product requirements are validated by Dell and the final configuration is agreed upon by both parties in writing. Pricing does not include applicable taxes, shipping and/or handling charges. Due to the custom nature of Dell | EMC equipment and its installation, the return of Dell | EMC equipment other than for warranty purposes is not allowed. (Click [here](#) for more information.) This offer is nontransferable. Purchases shall be subject to Dell's terms and conditions of sale located at [www.Dell.com](http://www.Dell.com) unless you have a separate written agreement with Dell. Dell is not responsible for typographical or other errors or omissions regarding prices or other information contained in this preliminary quote.

**DELL****QUOTATION****QUOTE #:** 287422761**Customer #:** 12424354**Contract #:** N39913715**Customer Agreement #:** NASPO|WSCA # A63307**Quote Date:** 4/11/06**Date:** 4/24/06 2:59:30 PM**Customer Name:** CITY OF ATLANTA

<b>TOTAL QUOTE AMOUNT:</b>	<b>\$35,954.32</b>		
<b>Product Subtotal:</b>	<b>\$35,954.32</b>		
<b>Tax:</b>	<b>\$0.00</b>		
<b>Shipping &amp; Handling:</b>	<b>\$0.00</b>		
<b>Shipping Method:</b>	<b>Ground</b>	<b>Total Number of System Groups:</b>	<b>2</b>

<b>GROUP: 1</b>	<b>QUANTITY: 1</b>	<b>SYSTEM PRICE: \$7,130.12</b>	<b>GROUP TOTAL: \$7,130.12</b>
<b>Base Unit:</b>			
Enclosure with no Blades, 2 Power Supplies for PowerEdge 1855 (221-8101)			
No Keyboard Option,for Dell PowerApps,Tied (310-0900)			
No Monitor Option (320-0058)			
Mouse Option None (310-0024)			
Documentation, PE1855, English (310-6258)			
2 GB Enet PowerConnect Switch IO Bays 1-2 or 3-4(w/ EthernetDaughterCard) (430-1082)			
2 Fibre Channel Pass-Thru + 1 Blank, For IO Bays 3-4 (430-1078)			
Keyboard, Video and Mouse Switch, Digital for PowerEdge 1855 Enclosure (430-1432)			
Rack Chassis w/Versarail RoundHole-Universal for 3rd-party racks, PE1855 (310-5821)			
Type 2 Contract Same Day 4HR Parts and Labor On-Site Response,Initial Year (960-3630)			
Premier Enterprise Support - Gold - Premium Services, 3YR Extended (950-6962)			
Type 2 Contract Same Day 4HR Parts and Labor On-Site Response,Two Years (950-6912)			
Premier Enterprise Support -Complex Resolutions w/AdvancedSoftware Support - 3 Pack -Exp. 3 Years (950-0117)			
Premier Enterprise On Demand Engineer Dispatch Severity 1 Three Years (970-0237)			
Premier Enterprise Support Service Gold Welcome Letter (310-3785)			
Thank You for buying Dell (983-2207)			
Please visit WWW.Dell.COM (983-2217)			
Dell Education Services OnlineEnterprise Training included w/purchase, take courses at LearnDell.com 90-Day Acc (983-7037)			
On-Site Installation Declined (900-9997)			
Power Supply Units, 2x2100 Watt, Redundant, PowerEdge 1855 Enclosure (310-6491)			
24Amp, Hi-Power Power Distribution Unit, 208V (310-1878)			
Enclosure Blade Blanks (310-6177) - Quantity 5			
Windows Server 2003 R2 Standard Edition, Media Kit (420-5807)			

<b>GROUP: 2</b>	<b>QUANTITY: 5</b>	<b>SYSTEM PRICE: \$5,658.64</b>	<b>GROUP TOTAL: \$28,293.20</b>
<b>Base Unit:</b>			
3.6GHz/2MB Cache, Xeon, 800MHzFront Side Bus for PowerEdge 1855 (221-7709)			



	3.6GHz/2MB Cache, Xeon, 800MHzFront Side Bus for PowerEdge 1855 (311-4844)
	4GB DDR2 400MHz (4X1GB) Single Ranked DIMMs (311-3594)
	146GB 15K RPM, Ultra 320 80pinSCSI Hard Drive, Hot Plug for PowerEdge 1855 Only (341-2117) - Quantity 2
	Fibre Channel HBA,Required w/FC Pass-thru or Switch in IOBays 3-4 (341-1559)
	Windows Server 2003 R2 Standard Edition, Includes 5 CALs (420-5811)
	OpenManage Software Installation ONLY, No Kit or System Documentation (310-5823)
	C2, RAID On Motherboard SCSI RAID 1, Minimum of 2 SCSI HDS Required for PowerEdge 1855 (341-1558)
	Premier Enterprise Support -Complex Resolutions w/AdvancedSoftware Support - 3 Pack -Exp. 3 Years (950-0117)
	Premier Enterprise On Demand Engineer Dispatch Severity 1 Three Years (970-0237)
	Premier Enterprise Support Service Gold Welcome Letter (310-3785)
	Type 2 Contract Same Day 4HR Parts and Labor On-Site Response,Initial Year (960-3800)
	Type 2 Contract Same Day 4HR Parts and Labor On-Site Response,Two Years (950-7312)
	Premier Enterprise Support - Gold - Premium Services, 3YR (950-7382)
	Thank You for buying Dell (983-2207)
	Please visit WWW.Dell.COM (983-2217)
	Dell Education Services OnlineEnterprise Training included w/purchase, take courses at LearnDell.com 90-Day Acc (983-7037)
	On-Site Installation Declined (900-9997)

SOFTWARE & ACCESSORIES			
Product	Quantity	Unit Price	Total
Altiris Deployment Solution for Servers Dell 1 to 249 (A0415878)	5	\$106.20	\$531.00
Number of S & A Items: 1		S&A Total Amount: \$531.00	

<b>SALES REP:</b>	April L Phillips	<b>PHONE:</b>	1800-981-3355
<b>Email Address:</b>	April_L_Phillips@dell.com	<b>Phone Ext:</b>	72-63707

For your convenience, your sales representative, quote number and customer number have been included to provide you with faster service when you are ready to place your order. You may also place your order online at [www.dell.com/quote](http://www.dell.com/quote)

Unless you have a separate agreement with Dell, the terms and conditions found at <http://ftpbox.us.dell.com/slg/resellers/resellertcs.htm> shall govern the sale and resale of the Products and Services referenced in this quotation.

Prices and tax rates are valid in the U.S. only and are subject to change.

**\*\*Sales/use tax is a destination charge, i.e. based on the "ship to" address on your purchase order. Please indicate your taxability status on your PO. If exempt, please fax exemption certificate to Dell Tax Department at 512-283-9276, referencing your customer number. If you have any questions regarding tax please call 800-433-9019 or email [Tax\\_Department@dell.com](mailto:Tax_Department@dell.com). \*\***

All product and pricing information is based on latest information available. Subject to change without notice or obligation.

LCD panels in Dell products contain mercury, please dispose properly.  
Please contact Dell Financial Services' Asset Recovery Services group for EPA compliant disposal options at [US\\_Dell\\_ARS\\_Requests@dell.com](mailto:US_Dell_ARS_Requests@dell.com). Minimum quantities may apply.

Shipments to California: For certain products, a State Environmental Fee Of Up to \$10 per item may be applied to your invoice as early as Jan 1, 2005. Prices in your cart do not reflect this fee. More Info: or refer to URL [www.dell.com/environmentalfee](http://www.dell.com/environmentalfee)

**DELL****QUOTATION****QUOTE #:** 297541509**Customer #:** 4062994**Contract #:** N39913715**Customer Agreement #:** NASPO|WSCA # A63307**Quote Date:** 6/2/06**Date:** 6/2/06 2:52:24 PM**Customer Name:** CITY OF ATLANTA

<b>TOTAL QUOTE AMOUNT:</b>	<b>\$35,914.08</b>		
<b>Product Subtotal:</b>	<b>\$35,914.08</b>		
<b>Tax:</b>	<b>\$0.00</b>		
<b>Shipping &amp; Handling:</b>	<b>\$0.00</b>		
<b>Shipping Method:</b>	<b>Ground</b>	<b>Total Number of System Groups:</b>	<b>1</b>

<b>GROUP: 1</b>	<b>QUANTITY: 4</b>	<b>SYSTEM PRICE: \$8,978.52</b>	<b>GROUP TOTAL: \$35,914.08</b>
<b>Base Unit:</b>	Dual Core, 2.8GHz/2x2MB Cache Xeon 800MHz FSB for PowerEdge 2850 (222-0209)		
<b>Processor:</b>	Dual Core, 2.8GHz/2x2MB Cache Xeon 800MHz FSB, 2nd processor for PowerEdge 2850 (311-5402)		
<b>Memory:</b>	8GB DDR2 400MHz (4X2GB) Single Ranked DIMMs (311-3606)		
<b>Keyboard:</b>	No Keyboard Selected (310-5017)		
<b>Monitor:</b>	No Monitor Option (320-0058)		
<b>Video Memory:</b>	Riser, ROMB and PCI-E, PE2850 (320-3978)		
<b>Hard Drive:</b>	73GB, U320, SCSI, 1IN 15K, PE2850 (341-1311)		
<b>Hard Drive Controller:</b>	Embedded RAID - PERC4 Embedded Integrated (341-1506)		
<b>Floppy Disk Drive:</b>	1.44MB Floppy Drive (341-1308)		
<b>Operating System:</b>	Windows Server 2003 R2 Enterprise Edition, Includes 25 CALs (420-5797)		
<b>Mouse:</b>	Mouse Option None (310-0024)		
<b>NIC:</b>	Dual On-Board NICS ONLY (430-8991)		
<b>CD-ROM or DVD-ROM Drive:</b>	24X IDE CD-ROM (313-2700)		
<b>Sound Card:</b>	Bezel for PE2850 (313-2693)		
<b>Speakers:</b>	1x6 Hard Drive Backplane PE2850 (311-4282)		
<b>Documentation Diskette:</b>	Electronic Documentation and OpenManage CD Kit, PE2850 (310-5474)		
<b>Additional Storage Products:</b>	73GB, U320, SCSI, 1IN 15K, PE2850 (341-1311)		
<b>Feature</b>	MR1, ROMB RAID 1, Drives attached to PERC4ei, PE2850 (341-1354)		
<b>Feature</b>	Rack Chassis w/Rapid Rails for Dell, HPQ or other Square Hole Racks, PE2850 (310-5462)		
<b>Service:</b>	Premier Enterprise Support - Complex Resolutions w/Advanced Software Support - 3 Pack - Exp. 3 Years (950-0117)		
<b>Service:</b>	Premier Enterprise Support Service Gold Welcome Letter (310-3785)		
<b>Service:</b>	Premier Enterprise On Demand Engineer Dispatch Severity 1 Three Years (970-0237)		
<b>Service:</b>	Type 2 Contract Same Day 4HR Parts and Labor On-Site Response, Initial Year (902-4600)		
<b>Service:</b>	Type 2 Contract Same Day 4HR Parts and Labor On-Site Response, Two Years (902-3262)		
<b>Service:</b>	Premier Enterprise Support - Gold - Premium Services, 3 Years (902-7352)		
<b>Service:</b>	Thank You for buying Dell (983-2207)		
<b>Service:</b>	Please visit <a href="http://WWW.Dell.COM">WWW.Dell.COM</a> (983-2217)		
<b>Service:</b>	Dell Education Services Online Enterprise Training included w/purchase, take courses at		

	LearnDell.com 90-Day Acc (983-7037)
Installation:	On-Site Installation Declined (900-9997)
Misc:	Redundant Power Supply With Straight Cords, No Y-Cord PE2850 (310-5463)
Misc:	INTEL 1000MT DUAL PORT GB, NIC (430-1039)
	CFI, 9104, Information, Label, Asset, Medium, #2, Factory Install (362-8800)
	CFI, 9104, Information, Label, Asset, Large, #2, Factory Install (362-8801)
	CFI Bypass EIDO (364-7502)
	CFI Routing SKU (365-0257)
	CFI, Rollup, Integration, OR-System, Label, Service (366-4301) - Quantity 2
	CFI, Information, W2K3-EM64T (371-4277)
	CFI, Information, RH4EL-ES -V4, EM64T (371-4278)

SALES REP:	April L Phillips	PHONE:	1800-981-3355
Email Address:	April_L_Phillips@dell.com	Phone Ext:	72-63707

For your convenience, your sales representative, quote number and customer number have been included to provide you with faster service when you are ready to place your order. You may also place your order online at [www.dell.com/quote](http://www.dell.com/quote)

Unless you have a separate agreement with Dell, the terms and conditions found at <http://ftpbox.us.dell.com/slg/resellers/resellertcs.htm> shall govern the sale and resale of the Products and Services referenced in this quotation.

Prices and tax rates are valid in the U.S. only and are subject to change.

***\*\*Sales/use tax is a destination charge, i.e. based on the "ship to" address on your purchase order. Please indicate your taxability status on your PO. If exempt, please fax exemption certificate to Dell Tax Department at 512-283-9276, referencing your customer number. If you have any questions regarding tax please call 800-433-9019 or email Tax\_Department@dell.com. \*\****

All product and pricing information is based on latest information available. Subject to change without notice or obligation.

LCD panels in Dell products contain mercury, please dispose properly. Please contact Dell Financial Services' Asset Recovery Services group for EPA compliant disposal options at [US\\_Dell\\_ARS\\_Requests@dell.com](mailto:US_Dell_ARS_Requests@dell.com). Minimum quantities may apply.

Shipments to California: For certain products, a State Environmental Fee Of Up to \$10 per item may be applied to your invoice as early as Jan 1, 2005. Prices in your cart do not reflect this fee. More Info: or refer to URL [www.dell.com/environmentalfree](http://www.dell.com/environmentalfree)